

AMENDMENTS TO THE CLAIMS:

The following listing of the claims replaces all prior versions and listing of the claims. Any claim or subject matter in a claim that is cancelled is effected without prejudice.

LISTING OF CLAIMS:

1.-25. (Cancelled)

26. (New) A process for producing pure maltitol from a feed solution having a maltose content of 70 to 90 weight %, a maltotriose content of less than 10 weight % and a glucose content of less than 10 weight % on dry solids basis, comprising:

subjecting said feed solution to chromatographic separation on a cation exchange resin with a degree of crosslinking of 2 to 4.5% to remove at least 75% of said maltotriose from said feed solution;

collecting resulting maltose fraction containing 90-96 weight % of maltose on dry solids basis with a maltose yield of 85 weight % or higher based on the maltose content of said feed solution;

hydrogenating said maltose fraction to form a mixture comprising maltitol, sorbitol and maltotritol;

crystallizing maltitol from the mixture; and

subjecting mother liquor from said crystallization to chromatographic separation on a cation exchange resin with a degree of crosslinking of 5 to 8% to remove at least 65% of sorbitol from said mother liquor to obtain a maltitol fraction containing 90-96% of maltitol with a maltitol yield of 85% or higher based on the maltitol content of said mother liquor.

27. (New) A process for producing pure maltitol from a feed solution having a maltose content of 70 to 90 weight %, a maltotriose content of less than 10 weight % and a glucose content of less than 10 weight % on dry solids basis, comprising:

subjecting said feed solution to chromatographic separation on a cation exchange resin with a degree of crosslinking of 5 to 8% to remove at least 65% of said glucose from said feed solution;

collecting resulting maltose fraction containing 90-96 weight % of maltose on dry solids basis with a maltose yield of 85 weight % or higher based on the maltose content of said feed solution;

hydrogenating said maltose fraction to form a mixture comprising maltitol, maltotriitol and sorbitol;

crystallizing maltitol from the mixture; and

subjecting mother liquor from said crystallization to chromatographic separation on a cation exchange resin with a degree of crosslinking of 2 to 4.5% to remove at least 75% of maltotriitol from said mother liquor to obtain a maltitol fraction containing 90-96% of maltitol with a maltitol yield of 85% or higher based on the maltitol content of said mother liquor.

28. (New) The process according to Claim 26 or Claim 27, wherein the crosslinked cation exchange resin is a strong acid cation exchange resin.

29. (New) The process according to Claim 26 or Claim 27, wherein the crosslinked cation exchange resin is a gel type strong acid cation exchange resin.

30. (New) The process according to Claim 26 or Claim 27, wherein the feed solution is derived by saccharification of liquefied starch with pullulanase and beta-amylase, and the resulting product is derived further by treatment with maltogenic alpha-amylase, and the product formed therefrom subsequently undergoes saccharification with low temperature alpha amylase, optionally followed by a final saccharification with maltogenic alpha-amylase.

31. (New) The process according to Claim 26 or Claim 27, wherein the chromatographic separation of the feed solution is effected at a temperature in the range of 65 to 90°C.

32. (New) The process according to Claim 26 or Claim 27, wherein the chromatographic separation of the feed solution is effected at a temperature of 80°C.

33. (New) The process according to Claim 26 or Claim 27, wherein the feed solution comprises less than 3 weight % of maltotriose on dry solids basis.

34. (New) The process according to Claim 26 or Claim 27, wherein the feed solution comprises less than 1.5 weight % of maltotriose on dry solids basis.

35. (New) The process according to Claim 26 or Claim 27, wherein the feed solution comprises less than 3 weight % of glucose on a dry solids basis.

36. (New) The process according to Claim 26 or Claim 27, wherein the feed solution comprises less than 1.5 weight % of glucose on a dry solids basis.

37. (New) The process according to Claim 26 or Claim 27, wherein the cation exchange resin with a degree of crosslinking of 5 to 8% comprises a crosslinked acrylic resin or a sulphonated styrene divinyl benzene copolymer.

38. (New) The process according to Claim 26 or Claim 27, wherein the cation exchange with a degree of crosslinking of 2 to 4.5% comprises a crosslinked acrylic resin or a sulphonated styrene divinyl benzene copolymer.